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1 appendix.

2 Q Okay. Another one of the -- Prep-Coat is one of the  
3 products you included in vermiculite and chrysotile sprayed.  
4 Another one is Zonolite Spra-Tex. That contains 36 percent  
5 asbestos. Are you aware of that?

6 A Again, I will -- I believe you.

7 Q Okay. Well, let's just take a look at ACC/FCR-531.  
8 That's your June 11th report, back in the same Appendix B that  
9 we were just looking at. Let's look at Page 6 of that. Do you  
10 see there the entry Zonolite Spra-Tex?

11 A Yes.

12 Q Okay. Let's go to the next page, Page 7. And the  
13 paragraph G, J, do you see that paragraph?

14 A Yes.

15 Q Okay. It says the regular Zonolite Spra-Tex is 30 to 36  
16 percent 7M asbestos by weight. Do you see that?

17 A Yes.

18 Q And you don't have any reason to doubt that that's  
19 correct, right?

20 A Again, this is directly from a Grace --

21 Q Okay.

22 A -- submission.

23 Q So, in vermiculite and chrysotile sprayed, that category,  
24 we've got products with five percent asbestos by weight, and  
25 products with 36 percent asbestos by weight? Is that correct?

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1 A As you say, there are on the order of 30 or so decorative  
2 plasters, and they encompassed a range of asbestos contents  
3 from -- I assume that you took the highest and the lowest?

4 Q I did. That's six percent -- I mean, that's -- one has  
5 got six times more asbestos in it than the other one. Is that  
6 right?

7 A If I can do the math, that's approximately correct. Yes.

8 Q Okay. We touched on this before, but the historical  
9 measurements that you found in the vermiculite and chrysotile  
10 sprayed category were seven historical reports at ten sites, is  
11 that right?

12 A That's correct.

13 Q And these historical reports are from a period of about  
14 1968 to 1972. Is that correct?

15 A As I remember. Yes.

16 Q We don't have any historical reports from before 1968. Is  
17 that correct?

18 A That's correct. Although I will posit to you that from my  
19 understanding of the entire process that there had been no  
20 changes in the composition or the technique by which Monokote  
21 III was applied during the entire period of its use, so I have  
22 no reason to believe that the resulting concentrations would be  
23 any higher or lower, or any different in a different time  
24 period.

25 MR. WEHNER: I'd ask that be stricken. It's not

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1 responsive to any question that was pending.

2 THE COURT: All right. It's stricken.

3 UNIDENTIFIED ATTORNEY: Your Honor --

4 THE COURT: It was not responsive.

5 Q Now, these historical measurements were taken by people  
6 other than you, right?

7 A That's correct.

8 Q Back in 1968 to 1972 you were in college?

9 A That's correct. The good old days.

10 Q These historical measurements are not peer reviewed  
11 studies, right?

12 A No. They are samples that were collected in the regular  
13 course of business by Grace. In addition, there are several of  
14 the studies, the sets of samples were collected by government  
15 agencies in the course of their doing regular, everyday  
16 business.

17 Q The measurements that were taken in these studies were not  
18 standardized? Is that correct?

19 A I guess I would ask you what you mean by standardized.

20 Q They weren't taken at -- all at the same distance, for  
21 example, from spraying or mixing events?

22 A Well, in that respect they were standardized in that they  
23 were personal samples, which means that the sampling apparatus  
24 was connected to the workers' lapel for the mixers on the  
25 sprayers. In addition, they were standardized in that they

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1 used the pertinent or the relevant standard sampling and  
2 analytical method that was used at the time. So, in that sense  
3 they are standardized.

4 Q In the sense that the readings that you categorized in --  
5 let me rephrase that. Apart from the spraying and mixing  
6 samples, the other samples were not standardized as far as how  
7 far they were taken from the spraying and mixing events. Is  
8 that correct?

9 A No. They were taken in other work areas.

10 Q Right. When these measurements were going on, the workers  
11 and the supervisors at these sites would have known that the  
12 measurements were being taken, right?

13 A It's hard to imagine that they didn't know that they had a  
14 pump on their belt, yes.

15 Q They have, like, a pump on their belt, and then they have  
16 some kind of -- what is it -- it's like a vacuum device up here  
17 by their breathing zone?

18 A No. It's -- the pump is a -- it sucks air through a piece  
19 of tubing that is connected to what we call a cassette, which  
20 is a plastic holder that holds a piece of filter paper, and the  
21 fibers are collected on the filter paper.

22 Q These reports, these seven reports covering ten sites that  
23 had historical Monokote III air samples in them, you got these  
24 from Grace through their attorneys? Is that correct?

25 A Well, I had several of them in my possession through the

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1 attorneys some time ago and I received several additional ones  
2 as a part of this work.

3 Q So, either back several years ago, or recently, you got  
4 them from Grace through their attorneys?

5 A That's correct.

6 Q And, you asked Grace for all the reports that talked about  
7 exposure anywhere, for any of their products, right?

8 A That's correct. Or any of their vermiculite or chrysotile  
9 containing products.

10 Q As far as you know, these seven reports covering ten sites  
11 are the only ones that still exist that have contemporaneous  
12 measurements associated with the application of Monokote III,  
13 is that correct?

14 A To my knowledge, these ten different study sites are the  
15 extent of the data.

16 MR. WEHNER: John, could you pull up ACC/FCR-2082,  
17 please? Dr. Lees, this is reproduced in the binder in front of  
18 you. John, could you page through to the last page in that  
19 series? There you go.

20 Q Dr. Lees, do you recognize this document?

21 A I haven't seen this document.

22 Q You've never seen this document before?

23 A I have not.

24 Q It contains measurements made during the application of  
25 Monokote III, is that correct?

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1 A I don't see where it says that. Oh, I see there.

2 Monokote III was being used at the boat construction site  
3 during the time of our visit.

4 Q The following tables list locations and results of the air  
5 samples that were taken. You haven't see this, so I presume  
6 you did not include this in your work, did you?

7 A I --

8 MR. McMILLAN: I would object until the witness has a  
9 chance to review the document to determine whether or not any  
10 of this is any information that he has seen or used before.

11 Q Dr. Lees, it's reproduced in your binder, if you want to  
12 look at it in paper. It's sometimes easier than looking at it

13 --

14 A What section?

15 Q If you look under the Tab 2082.

16 A Okay.

17 Q I think it's towards the back. There's a couple of  
18 preliminary letters and then, I think, the last page is the one  
19 that we're looking at that has these measurements on it.

20 A Okay. I've --

21 Q Having looked at it you still don't recognize it, right?

22 A No. I have not seen this report before.

23 Q So, Grace did not provide you with this report, is that  
24 correct?

25 A As I said, I have not seen this report before.

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1 Q If you had had this report in your possession, you would  
2 have certainly considered it for inclusion in your work in this  
3 case, would you have not?

4 A That's correct.

5 MR. WEHNER: Could you switch to the ELMO again?

6 Q Dr. Lees, I put on the ELMO one of the demonstratives that  
7 you used with Mr. McMillan. It's GG-2212. Do you see that on  
8 the screen?

9 A Yes, I do.

10 Q Okay. These categories, A through E, are the categories  
11 that you used to further sort the measurements that you found  
12 in historical reports, is that correct?

13 A Yes. Not the final sort, but the further sort, yes.

14 Q First you sorted by product type --

15 A Correct.

16 Q -- and then sorted by these nature of exposure categories,  
17 right?

18 A That's correct.

19 Q So, when you found historical measurements in a historical  
20 report, you had to decide which bucket or which category to put  
21 them in, right?

22 A That's correct.

23 Q Now, these categories, A through E, came from the PIQ, is  
24 that right?

25 A They coincide with the PIQ, that's correct.

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1 Q All right. Just to be clear, I don't know if I -- PIQ,  
2 personal injury questionnaire --

3 A Correct.

4 Q We use as a lingo a lot.

5 A Well, I'll try not to use industrial hygiene lingo.

6 Q Okay. Now, each of these categories can encompass  
7 multiple job titles, right?

8 A That's correct. Although several of them are very narrow.

9 Q B, for example, has -- let me rephrase that. Jobs in  
10 which a worker might personally disturb an in place Grace  
11 asbestos containing product, you put in Category B, is that  
12 right?

13 A That's correct, yes.

14 Q An example might be an electrician, for example?

15 A At the time of construction.

16 Q At the time of construction? Are you sure?

17 A Yes. I have included electricians post construction, that  
18 is doing renovations in my last category there.

19 Q In which category?

20 A The one that's entitled combined, post construction.

21 Q So, an electrician is in B at the time of the  
22 construction?

23 A If it's an electrician who is working during the original  
24 construction of the building, they would fall into that B  
25 category, yes. B, for the vermiculite and chrysotile combined,

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1 yes. If they're an electrician that was disturbing this  
2 material 20 years after the building was built and they were  
3 doing some renovations or whatever, they would be in B, in that  
4 final category, combined post construction.

5 Q The category combined post construction is not Grace  
6 products though, those aren't Grace measurements?

7 A It's -- they may have included Grace products, it was just  
8 everything was present in the building.

9 Q You don't know.

10 A I don't have specific knowledge, that's correct.

11 Q You don't have specific knowledge of what products were  
12 around in those Grace -- in those post construction  
13 measurements you just referred to, right?

14 A They were -- yes, they were multiple products of unknown  
15 origin.

16 Q That is, you don't know whose products they were.

17 A Some could have been Grace, in some instances.

18 Q Some could have but we don't know. In Category B, you did  
19 not located any historical air samples for Category B exposures  
20 to Grace products in the vermiculite and chrysotile sprayed  
21 category, right?

22 A That's correct.

23 Q Category C, personally installed Grace products, when you  
24 found a measurement that was associated with a helper, you put  
25 that into Category C, is that correct?

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1 A That's correct. The helper would be standing right next  
2 to the spray applicator in most instances.

3 Q And, cleanup workers you also put into C?

4 A Usually it was the helper who did the cleanup as part of  
5 his job.

6 Q Now, the PIQ itself doesn't clearly define Categories D  
7 and E, does it?

8 A No, it does not.

9 Q You treated measurements from outside the walls of the  
10 building or site, I'm sorry, outside of the walls, I think you  
11 said, in your direct testimony, where the product was being  
12 applied --

13 A Of the workspace, I think is the words --

14 Q -- of the workspace, but outside that area, but still on  
15 the site was Category D measurement, right?

16 A That's correct.

17 Q And measurements from inside the walls where the  
18 application or installation was taking place, you treated as  
19 Category E, right?

20 A That's correct.

21 Q And, you made up those definitions yourself?

22 A That's true. They are vague terms that I created my own  
23 specific definitions and included in the report, in order to  
24 put the data in the correct bucket.

25 Q You don't have any idea if the respondents to the PIQ

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1 interpreted D and E the same way as you, do you?

2 A You know, I don't have any idea how the respondents to the  
3 PIQ would interpret these, you know, the definitions as  
4 presented. I've told you my definition.

5 Q Staying with the vermiculite and chrysotile category that  
6 we've been talking about, you were able to extract from the  
7 historical reports that you found, some measurements to put  
8 into D and E categories, is that correct?

9 A That's correct.

10 MR. WEHNER: John, let's bring up ACC/FCR-2084,  
11 please.

12 Q And, let's go into the seventh page of that exhibit. Dr.  
13 Lees, again, this is in your binder under 2084, if you want to  
14 look at this on paper. You can find the page that is now on  
15 the screen there.

16 A Okay. Could you help me out with what the page number is?

17 Q If you go to the Tab 2084, and then you go seven pages in,  
18 you should find it.

19 A Okay, I have it.

20 Q You got it? Do you recognize this as your working  
21 spreadsheet on which you collected B and E measurements as  
22 reported in the historical studies for vermiculite and  
23 chrysotile spray?

24 A It looks like it, yes.

25 Q This spreadsheet is where you collected the D measurements

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1 and E measurements that you found, right?

2 A Yes.

3 Q Now, I recognize that later you subject these measurements  
4 to some adjustments, you add some adjustment factors, but these  
5 are the numbers that you pulled directly out of the historical  
6 studies, is that right?

7 A That's correct.

8 Q That first column under D, site, do you see that column?

9 A Yes.

10 Q That's the -- why don't you make that a little bit bigger,  
11 John, so we get all of them in there. That column. There you  
12 go. That's all of the measurements that you found in the  
13 historical studies that related -- that you categorized as  
14 measurements that were made D at a site, is that right?

15 A Yes.

16 Q There's nine of them, right? These are nine air samples?

17 A Yes.

18 Q Apart from these nine, there are no other historical  
19 measurement of D sites?

20 A Not that I'm aware of.

21 Q If we look at the fourth through the seventh measurements  
22 down, it begins 0.024, down to 0.015, do you see those  
23 measurements?

24 A Yes.

25 Q Those measurements were all taken one to two blocks away

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1 from the construction site where Monokote III was being used,  
2 is that correct?

3 A I'm not exactly certain of the distance, but they were in  
4 the vicinity, let's put it that way.

5 Q These measurements were taken at the Hilton Towers in San  
6 Francisco, is that correct?

7 A Yes.

8 Q And, one of them was taken, that first one, 0.024 was  
9 taken in a parking lot on Leavenworth Street, do you see that?

10 A Yes.

11 Q Do you know how many blocks Leavenworth Street is from the  
12 Hilton Towers?

13 A I do not. It's a long street I imagine.

14 MR. WEHNER: Let's put up the map of San Francisco.

15 Q Take a look at the screen, Doctor. We've got the Hilton  
16 Towers there, can you see it there on O'Farrell Street and  
17 Taylor Street? If you look at your screen, you'll see the map.  
18 Do you see the map there?

19 A Yes, I do. And I see the map here.

20 Q Oh, you've got the map in the materials.

21 A Yes.

22 Q Okay.

23 A Yes, okay, I see it, yes.

24 Q And, there's Leavenworth Street, do you see Leavenworth  
25 Street over two blocks away?

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1 A Yes, I do.

2 Q So, the measurement that you've got back in your  
3 spreadsheet, why don't we switch back to the spreadsheet, John.  
4 0.024 was taken two blocks from the site, is that correct?

5 A Two blocks upwind.

6 Q Two blocks upwind.

7 A That's correct. So, it would represent a background  
8 sample.

9 Q Right. It's not at a site, it's two blocks away from the  
10 site.

11 A And upwind, so it would represent the background fiber  
12 concentration, not related to the application at this  
13 particular site.

14 Q Right. Likewise, the next measurement down, stationary  
15 sample downwind, do you see that? Second floor of a building,  
16 Powell Street?

17 A Yes, I do.

18 Q That's a block away from the construction site.

19 A Downwind, yes.

20 Q Downwind. Then the next one down 0.077, you see that on  
21 Leavenworth Street again, that's two blocks away, right?

22 A Another upwind sample.

23 Q Another upwind sample, two blocks away?

24 A Same place it looks like.

25 Q Same place. Next one down, it says roof of a parking lot

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1 one block away, right?

2 A It's downwind.

3 Q So, these four samples aren't site samples, right?

4 A These, again, these represent the raw data that fit into  
5 that bucket.

6 Q Into the D bucket, the at site bucket.

7 A Correct.

8 Q You put those into the at a site bucket, right?

9 A At this point, they're in, you know, having gone through  
10 the 3000 or 2000 samples, what the subsequent processing of  
11 these was you know, frankly, I just don't remember at this  
12 point. This was -- there were a lot of calculations done.

13 Q You don't know whether you included these or not?

14 A You know, I don't recollect.

15 Q Let's go back to your July 31st report, ACC/FCR-532, John.  
16 Let's go to Appendix G again, that's the vermiculite and  
17 chrysotile spray category and let's go to the summary table at  
18 72 to 74. Let's look at Page 73 specifically. Do you see that  
19 page, Doctor?

20 A I do.

21 Q This is a page from your July 31st report, the summary  
22 table, right?

23 A Yes.

24 Q Okay. The fourth entry down -- I'm sorry, the first batch  
25 of entries there at the top, the first four lines, those are

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1 the measurements that you used in your calculations from the  
2 Hilton Towers, is that right?

3 A Could I see farther up on the top of this page?

4 Q Sure.

5 A And, the previous page where these columns are defined.

6 Q Okay. Let's go back down to 73. So, that first four  
7 lines, those are the Hilton Towers measurements.

8 A Correct.

9 Q Okay. Area, that's your D measurements, right?

10 A These were the area measurements, yes.

11 Q These are the D measurements, the ones that go in the D  
12 bucket, right?

13 A Areas would end up in the D.

14 Q Right. And, you go over area, PCM specified 0.220, I'm  
15 sorry, 0.008 and that next column five, that's the number of  
16 measurements you had, right?

17 A Yes, as I remember from the previous page, yes.

18 Q Right. So you used all five measurements from the D  
19 category from the Hilton Towers, right?

20 A Just a minute, let me take a look back at --

21 Q At the spreadsheet we were just looking at?

22 A At -- again, this was one of 2000 samples that I worked  
23 on, you know, a year ago at this point, so forgive me if the  
24 details take a little time.

25 It shows back in 2084, in the raw data, it shows

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1 1,2,3,4,5,6,7 samples associated with that study, okay?

2 Q Which one are you looking at? Are you looking at this  
3 page here?

4 A That's correct.

5 Q Okay.

6 A So, there are seven if I count correctly.

7 Q Right. The first one 0.016, that's from the Embarcadero  
8 site, right?

9 A No, I believe these are all Hilton Towers sites. I  
10 believe and, again, it's been a year since I looked at this  
11 specific -- I believe that these seven samples are all  
12 associated with the Hilton Towers. And that from this other  
13 table that you showed me, five were carried forward in the  
14 analysis and, again, without going to the spreadsheet and  
15 looking at it, I would, reconstructing what I did, I would  
16 think that I eliminated the upwind samples.

17 Actually, it's interesting looking at this, that the  
18 upwind samples are all higher than the downwind samples.

19 MR. WEHNER: John, let's go to ACC/FCR-2084, I think  
20 we're on it right now, but let's back up two pages. One more  
21 page.

22 Q Doctor, I'd like you to take a look at the document you  
23 have on your screen. It's also shown in ACC/FCR-2084.

24 A Yes.

25 Q That's a spreadsheet collecting the vermiculite and

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1 chrysotile sprayed measurements. You see that?

2 A Yes.

3 Q This one breaks down the various sites that came out of  
4 the Tabershaw-Cooper report, you see that?

5 A I do, yes.

6 Q Okay. You see in the orange there, it says  
7 Tabershaw-Cooper, Hilton Towers?

8 A Okay, yes, okay. I see.

9 Q And, there's five measurements, aren't there, under  
10 background area?

11 A Right, for the Hilton Towers, that's correct, yes.

12 Q Right. And so you used all five of those measurements?

13 A Yes,

14 Q Okay. Thank you. Dr. Lees, there is substantial  
15 variability of exposures within a job category, isn't there?

16 A Yes.

17 Q And, in fact, I'm sorry, John, can you put back up the  
18 spreadsheet that we were looking at, 2084, the MK III, D & E  
19 description of samples, sixth page in.

20 THE COURT: I'm sorry, what's the exhibit number?

21 MR. WEHNER: I'm sorry, it's 2084.

22 THE COURT: Okay, thank you.

23 MR. WEHNER: It's the one we were looking at before.  
24 I realized I wasn't done. Have it? No, couple more pages in.  
25 That's the one.

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1 Q Now, as I said before, let's zoom out so we can see the  
2 whole spreadsheet. The D samples, these are the D samples that  
3 you found, right?

4 A That's correct.

5 Q And, then the next column there under E, in a space --  
6 let's do the whole column, John, please. These are all of the  
7 measurements that you located in the historical studies that  
8 are associated -- that you put in the E, in a space category,  
9 right?

10 A That's correct.

11 Q Okay. And there are 1, 2, 3, 4, 5, 6, of those, right?

12 A Um hum, yes.

13 Q These are six air samples you found in the historical  
14 studies for Monokote III.

15 A For these sites.

16 Q These are all -- these are it. This is all the data you  
17 had, right?

18 A These are all the data, that's correct.

19 Q Now, the measurements vary about here, in E, in a space,  
20 they vary by a factor of approximately 10 right?

21 A Roughly speaking.

22 Q All right. And could you zoom in on D --

23 A From the highest to the lowest is a factor of ten.

24 Q The highest to the lowest is a factor of ten. With D, can  
25 you do all of D? Here, the highest to the lowest is a factor

1 200, right?

2 A Um -- I'm just trying to do the math. I believe that is  
3 correct. There is one exceedingly low sample in that group of  
4 samples. That makes the ratio very high.

5 Q 200?

6 A Yes.

7 Q There is substantial variability of exposures within a job  
8 category, right?

9 A Yes. I stated that in my previous testimony.

10 Q In your work, apart from looking at the highest and lowest  
11 readings, you did not conduct any statistical analysis of the  
12 variability of the data you presented, did you?

13 A No. Again, I presented the average.

14 Q Right. You didn't calculate a standard deviation?

15 A No, I --

16 Q You didn't calculate confidence intervals?

17 A I did not.

18 Q And you didn't calculate any other measure of variation?

19 A I did not.

20 Q It would be standard practice to calculate those measures  
21 if you were submitting the results to a peer review journal,  
22 would it not?

23 A Not if it were part of a job exposure matrix. The average  
24 is what is used in job exposure matrices and in a peer reviewed  
25 journal, that's what would typically be seen.

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1 Q Dr. Lees, you testified in deposition as follows, did you  
2 not?

3 "Q What would be the conditions under which in  
4 submitting your work --

5 MR. McMILLAN: I'm sorry, what's the page?

6 MR. WEHNER: Deposition Page 131, line 19 to 132,  
7 line 5.

8 Q Dr. Lees, you testified as follows, did you not?

9 "Q What would be the conditions under which in  
10 submitting your work for publication to the profession, that  
11 you would not calculate a standard deviation and the results?  
12 And by results I mean, readings?

13 You answered:

14 "A You know, it would not be unusual, maybe even  
15 standard, to calculate the standard deviation."

16 That was your testimony, correct?

17 A And, --

18 Q That's what you said.

19 A That is what I said. And that is correct for many  
20 industrial hygiene publications, in which the purpose of the  
21 data is to portray the distribution or such that would be  
22 typical practice. It, however, is not typical practice when  
23 publishing data that are to be used in a job exposure matrix  
24 that is going to be used for an epidemiologic study.

25 Q Dr. Lees, in your report you -- in your testimony on

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1 direct you reported measurements made using -- sorry. Did I  
2 leave off in the middle of my question? I think I did.

3 THE COURT: Yes. In his report, he reported  
4 measurements made using.

5 MR. WEHNER: Thank you, Your Honor.

6 Q You report measurements made using PCM techniques, right?

7 A The historic data were PCM data, that is correct.

8 Q And, I think as you explained, PCM stands for phase  
9 contrast microscopy?

10 A That's correct. That's our own little acronym.

11 Q Right. It's a method of counting fibers using an optical  
12 microscope.

13 A That's correct.

14 Q The OSHA threshold for asbestos are expressed in terms of  
15 PCM measurements, are they not?

16 A The analytical method associated with the standard is  
17 defined as PCM, that's correct.

18 Q Exposure measures used in asbestos risk assessment are in  
19 PCM, are they not?

20 A The historical data that were used for the old  
21 epidemiologic studies are PCM data, that is correct. These  
22 data were collected at asbestos manufacturing facilities such  
23 as textile mills.

24 Q Now, you've used a conversion factor developed by Dr.  
25 Richard Lee, and you've applied those to the PCM measurements,

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1 right?

2 A That's correct.

3 Q You get then what's termed a PCME measurement, is that  
4 right?

5 A PCM, phase contract microscopy equivalent.

6 Q The conversion factors that you used were developed by Dr.  
7 Richard Lee, right?

8 A He, under my direction, utilizing NIOSH standard method  
9 7402, developed the correction factors. He did the mechanics,  
10 yes.

11 Q Applying that conversion factor to the PCM values that you  
12 reported, always has the effect of substantially reducing the  
13 PCM value, does it not?

14 A That's correct because in the construction environment,  
15 there are many non-asbestos fibers present.

16 Q Before the WR Grace bankruptcy litigation, you had never  
17 used Dr. Richard Lee's conversion factors before, is that  
18 correct?

19 A I don't believe that -- I can't recollect, let's put it  
20 that way. No, I don't believe that I had.

21 Q In fact, you've never used PCM to PCME conversion factors  
22 in your professional work prior to the WR Grace bankruptcy  
23 litigation, is that correct?

24 A I don't believe I ever had a need to.

25 Q Dr. Lee's conversion factors have not been published in

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1 the peer review literature, have they?

2 A Well, the methodology has been published as a peer  
3 reviewed standard government method. So, I --

4 Q His specific conversion factors have not been published in  
5 a peer review literature.

6 A No, and as they state in that method, that there is not a  
7 standard conversion factor for all materials, there is, in  
8 fact, the conversion factors are specific to different products  
9 and uses, as stated in the method.

10 Q In fact, there is no generally recognized set of PCM to  
11 PCME conversion factors for Grace products, are there?

12 A Again, they are specific to the -- there is no general  
13 conversion factor, it is specific to the product.

14 Q Dr. Lees, you testified in deposition as follows, did you  
15 not --

16 MR. McMILLAN: I'm sorry, what page?

17 MR. WEHNER: 74, lines 2 through 9.

18 "Q Is there any generally recognized set of conversion  
19 factors with respect to Grace products that is generally  
20 recognized in the field of industrial hygiene or exposure  
21 assessment? A --

22 MR. McMILLAN: Your Honor, I object. He's reading  
23 the witness's consistent statement, not an inconsistent  
24 statement.

25 THE COURT: That's true. That is so. Sustained.

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1 MR. WEHNER: Let me -- if Your Honor would allow me  
2 to finish reading the quote, it is not consistent.

3 THE COURT: All right. I'll hear the quote. I just  
4 saw it on the screen, but it's not in the record. So, go  
5 ahead.

6 "A I am unaware of any generally recognized conversion  
7 factors for any product anywhere."

8 Is that your accurate testimony?

9 MR. McMILLAN: Your Honor, again, I think that's  
10 consistent with what the witness just said.

11 THE COURT: Actually, the witness has never been  
12 asked that question. The only question the witness has been  
13 asked relates specifically to a particular set of standards  
14 related to Grace products. He's never been asked on this  
15 record about sets of standard for all products everywhere,  
16 under any set of guidelines in any jurisdiction, period. So,  
17 he's never been asked that question. You may lay a foundation  
18 for that question, but the objection is sustained so far.

19 Q Dr. Lees, there is no generally recognized set, or any  
20 generally recognized PCM to PCME conversion factor for any  
21 Grace product, is there?

22 A Again --

23 THE COURT: I'm sorry, for my benefit, there is no --  
24 would you repeat that? There is no generally recognized set of  
25 PCM --

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1 Q There is no generally recognized PCM to PCME conversion  
2 factor for any Grace product, is there?

3 A Again, the conversion factor is specific to a product in  
4 use and it is calculated from the appropriate set of samples.

5 Q That's not really answering my question, Dr. Lees.

6 A Well, maybe I don't understand your question, then.

7 Q There is no generally recognized PCM to PCME conversion  
8 factor for any Grace product, is there?

9 A Not to be a nitpicker here, but can you define for me what  
10 generally recognized means, in that the methodology used to  
11 calculate these conversion factors, is generally recognized, is  
12 generally accepted, it is an official U.S. government standard  
13 method. So, the methodology is absolutely recognized. The  
14 factors that are converted, or calculated using this method are  
15 a function of whatever set of data that they are used for, or  
16 whatever product, if you will, and use. So, that there is --  
17 yes, they're very specific and not general in nature.

18 Q Dr. Lee calculated that conversion factor, right?

19 A Yes. Those conversion factors. I believe there are eight  
20 separate ones.

21 Q He, that is Dr. Richard Lee, didn't look them up in some  
22 kind of book.

23 A Oh, that's correct, yes.

24 THE COURT: When you say calculate, I'm sorry, you  
25 mean he designed them. Is that what you're trying to say? I

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1 mean, it was his work product. Those factors were his work  
2 product.

3 MR. WEHNER: It was his work product, exactly, Your  
4 Honor, right.

5 THE WITNESS: He analyzed the samples that I  
6 specified to him. He analyzed the samples by phase contrast  
7 microscopy and transmission electron microscopy as prescribed  
8 by this standard method and did the arithmetic to calculate the  
9 conversion factors.

10 THE COURT: Oh.

11 Q He had to use his judgment to determine what the  
12 appropriate conversion factor was.

13 A No, no. Absolutely not. The conversion factor falls out  
14 of the data. The data tell you what the conversion factor is.

15 Q You didn't do that work, though?

16 A No. I am not a microcopist. I didn't --

17 Q Dr. Richard Lee did that work.

18 A I'm not a microcopist. I'm sorry. I'm not a microcopist,  
19 I did not look at the samples and count fibers. That what Dr.  
20 Lee did.

21 MR. WEHNER: Your Honor, I'd move to strike any of  
22 his direct testimony that relates to PCME data or conversions  
23 or the results thereof.

24 MR. McMILLAN: Your Honor, the witness on the stand  
25 just established the record for how he was the one who directed

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1 that the method be applied. Directed the samples that would be  
2 applied to, and that what Dr. Lee did was arithmetic  
3 essentially at his direction.

4 THE COURT: Well, yes, he also said that he didn't do  
5 the work that went into the actual calculation nor has he  
6 testified to the actual calculation, but he has certainly  
7 explained the use of that calculation with respect to this  
8 data. I think the witness has testified well within his area of  
9 expertise. He has not testified to the factors, he's stayed  
10 well away from the factors and, in fact, when I asked the  
11 question about work product, was pretty quick to explain that  
12 that's, in fact, not what the correct approach was. So, I  
13 think the witness has testified within his area of expertise.  
14 I don't see a basis to strike his direct testimony now that the  
15 cross examination has been completed. So, I'll stay with the  
16 original ruling. The objection is overruled.

17 Q Dr. Lees, you haven't in your work here in this case  
18 analyzed whether any of the chrysotile asbestos WR Grace used  
19 had tremolite asbestos in it, did you?

20 A Whether any of the chrysotile had tremolite?

21 Q Whether the chrysotile had any tremolite in it. That's  
22 not part of your work in this case.

23 A That's not part of my work, no, no.

24 MR. WEHNER: Give me just a moment, Your Honor.

25 (Pause)

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1 Q Dr. Lees, you have not analyzed whether any chrysotile  
2 that Grace used in its products that came from Canada had any  
3 tremolite in it, is that correct?

4 A I have no knowledge of sources of chrysotile. As I said,  
5 all I have is the results of the phase contrast microscopic  
6 analyses of exposure.

7 Q And, Dr. Lee --

8 A Lees.

9 Q Let's not get confused.

10 A Yes.

11 Q Dr. Lees, the products that are in the vermiculite and  
12 chrysotile categories, all the products that you put into that  
13 group, you don't have any idea how many construction sites at  
14 which those products were used, right?

15 A I have no specific number to give you, no.

16 Q You don't know how many sites at which Monokote III was  
17 used?

18 A I remember hearing estimates or speculations, but I  
19 frankly don't remember that number and it's really irrelevant  
20 to what I did.

21 Q To what you did?

22 A That's correct.

23 Q And Zonolite high temperature cement, you have no idea how  
24 many sites at which that product was used, do you?

25 A I don't, I do not.

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1 MR. WEHNER: Thank you, that's all I have.

2 (Pause)

3 MR. RASMUSSEN: Thank you, Your Honor. I'm Garrett  
4 Rasmussen for the Future Claimants.

5 CROSS EXAMINATION

6 BY MR. RASMUSSEN:

7 Q Good afternoon, Dr. Lees.

8 A Good afternoon.

9 Q Dr. Lees, I want to ask you this afternoon about two basic  
10 topics. The first topic is whether you accurately calculated  
11 the exposure averages that you actually used and second, is  
12 whether it was proper to use average exposures for the purpose  
13 of excluding individual claimants. Let's start with the first  
14 one. And, I will be referring from time to time to your July  
15 expert report which you already have in front of you in that  
16 binder that's Exhibit 533, but when I do, I'm actually going to  
17 just be referring to two tables which I will put up on the  
18 screen when I do.

19 A Okay.

20 Q I'll also be referring to two of the underlying studies to  
21 pick up the exposure values and I'll just also be referring --  
22 showing you those portions of those underlying studies at that  
23 time. I have the complete studies, so if you'd like to look at  
24 them at that time, just speak up.

25 A Okay.